

REMARKS

This application has been reviewed in light of the Office Action dated November 1, 2006. Claims 1-26 are now pending in this application. Claims 1-7, 9, and 11-18 have been amended to define more clearly what Applicant regards as his invention. Claims 19-26 have been added to provide Applicant with a more complete scope of protection. Claims 1, 11, 21, and 24 are in independent form. Favorable reconsideration is respectfully requested.

At paragraph 2 of the Office Action, the drawings were objected to under 37 C.F.R. 1.83(a) for allegedly not showing every feature of the invention specified in the claims. The Office Action states: "Therefore, the 'output control means for outputting image data processed by said first image processing means via the external bus; preservation means for preserving the result of processing on the image data by said first processing means' must be shown or the feature(s) canceled from the claim(s)."

Claim 1 now recites "output control means for outputting image data processed by said second image processing means via the external bus; preservation means for preserving a status of the result of processing on the first image data by said second processing means". (Emphasis Added.)

Independent Claim 11 recites certain features which are similar in many relevant respects to those discussed above with respect to Claim 1.

Accordingly, withdrawal of the objection to the drawings is respectfully requested.

The title has been amended to make it more descriptive, as required in the Office Action.

At paragraphs 4 and 5 of the Office Action, Claims 1-18 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Office Action states: “The limitation of ‘output control means for outputting image data processed by said first image processing means via the external bus; preservation means for preserving the result of processing on the image data by said first processing means’ is subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.”

Claim 1 now recites “output control means for outputting image data processed by said second image processing means via the external bus; preservation means for preserving a status of the result of processing on the first image data by said second processing means” (Emphasis Added).

Independent Claim 11 recites certain features which are similar in many relevant respects to those discussed above with respect to Claim 1.

Accordingly, withdrawal of the rejection of Claims 1-18 under 35 U.S.C. § 112, first paragraph, is respectfully requested.

At paragraphs 6 and 7 of the Office Action, Claims 1-18 were rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps. The Office Action states: “The omitted steps are: output control means for outputting image data processed by said second image processing means via the external bus; preservation means for preserving the result of processing on the image data by said second processing means.”

Claim 1 now recites “output control means for outputting image data processed by said second image processing means via the external bus; preservation means

for preserving a status of the result of processing on the first image data by said second processing means". (Emphasis Added.)

Independent Claim 11 recites certain features which are similar in many relevant respects to those discussed above with respect to Claim 1.

Accordingly, withdrawal of the rejection of Claims 1-18 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

At paragraph 8 of the Office Action, Claims 1-18 were rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential elements. The Office Action states: "The omitted elements are: key element 301 that is added between image processor 2 and image buffer controller 3 is omitted (see lines 2-10, page 22, specification); and S29 of fig. 5."

It is submitted that image processor 301 of Fig. 4 and step S29 ("START PRESERVATION OPERATION 2") of Fig. 5 are not essential to the claimed invention and are not necessary to practice the claimed invention. M.P.E.P. § 2172.01. Claim 1 is generic to Species I and II, as Claim 1 reads on each of Figs. 1 and 4 and encompasses both embodiments.

For example, Claim 1 is directed to an image processing apparatus connected to at least an external controller (901)¹ via an external bus. First image processing means (2 or 2/301) processes input image data and generates first and second image data from the input image data. Image storage means (4) stores the first and second image data processed by the first image processing means. Second image processing means (5) processes the first and second image data read from the image storage means.

¹/It is of course to be understood that the references to various portions of the present application are by way of illustration and example only, and that the claims are not limited by the details shown in the portions referred to.

Output control means (6) processes and outputs image data processed by the second image processing means via the external bus. Preservation means (5a) preserves a status of the result of processing on the first and second image data by the second processing means. Pseudo master means (7) controls a preservation operation by the preservation means, in correspondence with output completion of the first image data by the output control means. The first image processing means generates the second image data while the output control means outputs the first image data processed by the second image processing means, and the second image processing means starts processing the second image data, in correspondence with output completion of the first image data by the output control means.

Independent Claim 11 recites certain features which are similar in many relevant respects to those discussed above with respect to Claim 1.

Accordingly, withdrawal of the rejection of Claims 1-18 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

At paragraph 9 of the Office Action, Claims 17 and 18 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 17 and 18 now each recite a computer-readable medium as suggested by the Examiner. Accordingly, withdrawal of the rejection of Section 101 is respectfully requested.

Claims 1, 3, 4, 11, 13, 14, 17, and 18 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 5,687,332 to *Kurahashi*; Claims 2, 5, 6, 12, 14, and 16, as being obvious from *Kurahashi* in view of so-called “well known prior art”; and Claims 7-10, as being obvious from *Kurahashi* in view of U.S. Patent 6,433,885 to *Verghese*.

Claim 1 is directed to an image processing apparatus connected to at least an external controller via an external bus. First image processing means processes input

image data and generates first and second image data from the input image data. Image storage means stores the first and second image data processed by the first image processing means. Second image processing means processes the first and second image data read from the image storage means. Output control means processes and outputs image data processed by the second image processing means via the external bus. Preservation means preserves a status of the result of processing on the first and second image data by the second processing means. Pseudo master means controls a preservation operation by the preservation means, in correspondence with output completion of the first image data by the output control means. The first image processing means generates the second image data while the output control means outputs the first image data processed by the second image processing means, and the second image processing means starts processing the second image data, in correspondence with output completion of the first image data by the output control means.

Among other notable features of Claim 1 are that (1) the preservation means preserves a status of the result of processing on the first and second image data by the second processing means, (2) the pseudo master means controls a preservation operation by the preservation means, in correspondence with output completion of the first image data by the output control means, and (3) the first image processing means generates the second image data while the output control means outputs the first image data processed by the second image processing means, and the second image processing means starts processing the second image data, in correspondence with output completion of the first image data by the output control means. By virtue of the features of Claim 1, the efficiency of image data processing can be improved, and the suspension time of the image processing can be reduced.

Kurahashi, as understood by Applicant, relates to an image edit processing system. Fig. 3, cited in the Office Action, is a diagram of a configuration for explaining the client 22 of Fig. 2. In Fig. 3, the client processing apparatus 31 in the client 22 includes a network connection processing unit 311 for connecting the client 22 to the network 21. The client processing apparatus 31 also includes a client processing unit 312 for performing processing, such as obtaining image data suitable for processing by the client 22 or allowing the image server 23 to perform part of the processing, by conducting analysis of editing data, by effecting a changeover as to whether the image is to be processed by the client 22 or by the image server 23, or by sending operations of processing/editing to the image server 23 as the editing data. The client processing apparatus 31 also includes an image processing/editing unit 314 for processing and editing the image sent thereto from the image server 23, an editing data retaining unit 313 for retaining the editing data for editing the image, an image data retaining unit 315 for retaining only the image data, and an edited image retaining unit 316 for retaining the edited image processed and edited by the image processing/editing unit 314. (See column 6, lines 43-64 of *Kurahashi*.)

Therefore, in *Kurahashi*, an editing data retaining unit 315 (of Fig. 3) retains edited image data (see column 6, lines 60-61 of that patent). To the contrary, in the image processing apparatus of Claim 1, the claimed preservation means preserves a status of the result of processing on first and second image data by second processing means, but does not preserve processed image data.

Furthermore, Claim 1 also recites pseudo master means for controlling a preservation operation by the preservation means, in correspondence with output completion of the first image data by output control means. To the contrary, in *Kurahashi*,

an editing data managing unit 117 manages the image data retained in the editing data retaining unit 118, but not control of retaining, in a case that output of the processed image data is completed. See Fig. 11 of *Kurahashi*, as well as column 10, lines 49-51 of that patent.)

Moreover, nothing in *Kurahashi* would teach or suggest that second image data is generated while the processed first image data is output, nor that processing of the second image data is started, when the output of the processed first image data is completed.

Applicant has found nothing in *Kurahashi* that would teach or suggest (1) preserving a status of the result of processing on first and second image data, (2) controlling a preservation operation in correspondence with output completion of the processed first image data, and (3) generating the second image data while outputting the processed first image data, and starting processing of the second image data in correspondence with output completion of the processed first image data, as recited in Claim 1.

Accordingly, Claim 1 is believed to be clearly allowable over *Kurahashi*.

Independent Claim 11 recites certain features which are similar in many relevant respects to those discussed above with respect to Claim 1 and therefore are also believed to be patentable over *Kurahashi* for at least the reasons discussed above.

Claim 21 is directed to an image processing apparatus connected to at least an external controller via an external bus. First image processing means processes input image data, and image storage means stores image data processed by the first image processing means. Second image processing means processes image data read from the image storage means, and output control means outputs image data processed by the

second image processing means via the external bus. Preservation means preserves an amount of the result of processing on the image data by the second processing means, and pseudo master means controls a preservation operation by the preservation means, in correspondence with image data output by the output control means.

Nothing in *Kurahashi* would teach or suggest (1) preservation means preserving the amount of the result of processing on the image data by the second processing means, and (2) pseudo master means controlling a preservation operation by the preservation means, in correspondence with image data output by the output control means, as recited in Claim 21.

Accordingly, Claim 21 is believed to be clearly allowable over *Kurahashi*.

Independent Claim 24 recites certain features which are similar in many relevant respects to those discussed above with respect to Claim 21 and therefore are also believed to be patentable over *Kurahashi* for at least the reasons discussed above.

A review of the other art of record, including *Verghese*, has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'R A DiPerna', is written over a horizontal line.

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